MESESCHIZA GROSVENORII, LEA.

BY A. A. HINKLEY.

A few remarks on this subject in addition to the writer's notes in the Nautilus for May, 1901, may not be amiss. The Wabash river was visited in August of the present year, at several places in Posy county, Indiana. The writer was determined to find the form described by Dr. Lea under the above name if it still existed.

On the "Chains" where a stream of water passed with considerable current, the young Angitrema armigera were in large numbers on the under side of the rocks. Here the Meseschiza form was found quite plentiful, and some three hundred specimens were taken. It is a characteristic lot of young Angitrema armigera, with the exception of the notch in the lip, showing all the variations of color markings. The notch varies as to development and location. Of the specimens taken, twenty-five per cent. or more have the notch at the perifery; in many of these a line of lighter color is left to mark the former positions of the notch, this line does not precede the notch on any other part of the shell.

These notched forms were only found where the water had a strong current; and it was not confined entirely to Angitrema armigera, for specimens of Pleurocera and Vivipara subpurpurea were taken in the same situation with the same peculiar notch.

Pyrgulopsis wabashensis was found on water plants in quiet water, on moss-covered rocks and timbers where there was some current at the water's edge, and at the old dam near New Harmony they were found in mid-stream, on rocks covered with a little moss and sediment.

DESCRIPTIONS OF NEW HAWAIIAN MARINE SHELLS.

BY H. A. PILSBRY AND E. G. VANATTA.

BITTIUM HILOENSE n. sp. Fig. 1.

The shell has the usual oblong-turrite shape, and is uniform yellowish gray-white except the swollen, slightly exserted first whorl,

which is opaque white and smooth. Subsequent whorls are flattened but separated by a deep suture, the earlier ones having two spiral beaded cords. At the end of the first $3\frac{1}{2}$ to 4 whorls a third spiral cord appears. The last whorl is rounded periferally, and has about 10 spiral cords, separated by spaces of about their own width; the upper 5 or 6 are nodose at the intersections of low, narrow, vertical folds, which do not extend below the perifery. The last whorl has a low, rounded, rather massive varix behind the outer lip. Aperture oval, produced in a short, deep channel at the base.

Length 3.34, diam. 1.39 mm.; whorls $6\frac{1}{2}$.

Hilo, Hawaii. Types no. 95906 A. N. S. P., collected by Mr. D. Thaanum.

This tiny Bittium is somewhat related to B. leucocephalum Wat-

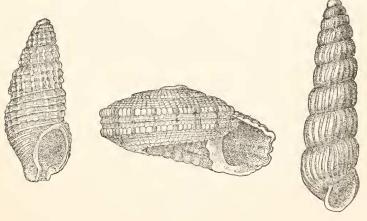


Fig. 1. Fig. 2. Fig. 3.

son, described from the reef at Honolulu, from which it differs in many details of shape and sculpture. Watson's type is evidently an immature shell, smaller than B. hiloense, but it has 8 whorls, while hiloense has but $6\frac{1}{2}$.

Torinia discoidea sterkii n. subsp. Fig. 2.

The shell is depressed, biconvex with flat perifery, widely umbilicate, the width of umbilicus contained 2.6 times in that of the shell.

First whorl is smooth, convex and bicolored, a spiral deep reddish-brown band half the width of the whorl revolving below the suture; on the second whorl this band spreads, becomes diluted, and finally disappears. Last whorl grayish, with white and brown spots along the periferal beaded cords. The last whorl has 5 beaded spiral cords above, the first and fifth larger; a beaded spiral lies between the two cords at the periferal angles. The base has 7 beaded spirals, the outer one and three inner larger than the others. Suture channeled. Alt. 2.3, diam. 4.6 mm.

Waikiki Beach, Honolulu, H. I. (F. Stearns). Types in the collection of the Academy of Natural Sciences of Philadelphia, No. 93833.

Differs from typical *T. discoidea* Pease in having one more spiral row of beads on the upper surface of the whorls and in having a small spiral row of beads between the two peripheral larger rows. It is also darker in color. The type specimens were picked from shell-sand by Dr. V. Sterki, in whose honor it is named. The same form was taken at the Marquesas Islands by C. D. Voy.

TURBONILLA (CHEMNITZIA) THAANUMI n. sp. Fig. 8.

The shell is very slender, turrite, slowly tapering, a little more rapidly so near the summit; somewhat translucent white. One nuclear whorl is planorboid, its axis not quite at a right angle with that of the shell, but a little oblique. Post-nuclear whorls are sculptured with rounded ribs, slightly oblique and gently sigmoid, equal to the intervals, and extending from suture to suture. On the last whorl there are 22 axial ribs; and the intervals parting them stop abruptly a short distance below the periphery, leaving the rest of the base smooth. There is no spiral sculpture. The sutures are deeply impressed; whorls evenly convex. The aperture is about one-fifth the total length, ovate. Columella nearly straight, somewhat concave below, gently convex above.

Length 3.1, diam. 0.82 mm.; post-nuclear whorls $8\frac{1}{2}$.

Hilo, Hawaii. Type no. 95907 A. N. S. P., collected by Mr. D. Thaanum.

This species differs from the Hawaiian T. decussata Pease by the absence of spiral sculpture.